



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0008; Project Identifier MCAI-2021-00882-R; Amendment 39-21985; AD 2022-06-19]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Leonardo S.p.a. Model AW109SP helicopters. This AD was prompted by reports of corrosion inside the hoist support assembly (boom assembly) (affected part) that affects both the huck bolt heads (blind bolt fasteners) and the support surface. This AD requires repetitive inspections of the external and internal surfaces of each affected part for cracking and corrosion and, depending on the findings, accomplishment of corrective actions, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For EASA material incorporated by reference (IBR) in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this

material at the FAA, call (817) 222-5110. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0008.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0008; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0179, dated July 27, 2021 (EASA AD 2021-0179), to correct an unsafe condition for Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A., AgustaWestland S.p.A., and Agusta S.p.A., Model AW109SP helicopters, all serial numbers.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Leonardo S.p.a. Model AW109SP helicopters. The NPRM published in the *Federal Register* on January 21, 2022 (87 FR 3241). The NPRM was prompted by reports of corrosion inside the hoist support assembly affecting both the huck bolt heads and the support surface. Investigation of the root cause for the corrosion is ongoing. The NPRM proposed to require repetitive inspections of the external and internal surfaces of each affected part for cracking and corrosion and, depending on the findings, accomplishment of corrective actions, as specified in EASA AD 2021-0179.

The FAA is issuing this AD to address corrosion on the hoist support assembly. This condition, if not addressed, could affect the structural integrity of the hoist support assembly, leading to in-flight detachment of the hoist support and consequent damage to the helicopter, and injury to hoisted persons. See EASA AD 2021-0179 for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. Except for minor editorial changes, this AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0179 requires repetitive inspections of the external and internal surfaces of each affected part for cracking and corrosion and, depending on the findings, accomplishment of corrective actions. If there is no evidence of corrosion on the interior surface of the boom torque tube or on the hulk bolt heads, the corrective actions include spraying the interior surface with corrosion preventative compound around the hulk bolt heads from the forward and aft ends of the boom torque tube, and installing new tube plugs on both ends of the boom torque tube. If there is superficial corrosion on the interior surface of the boom torque tube or on the hulk bolt heads, the corrective actions include cleaning the corrosion, spraying the interior surface with corrosion preventative compound, and installing new tube plugs on both ends of the boom torque tube. If corrosion is found that is not superficial corrosion, the corrective action is repair or replacement of the boom torque tube.

If cracking is observed on the external surface of the hoist support assembly the corrective action is replacement of the hoist support assembly. If only corrosion is found on the external surface of the hoist support assembly the corrective actions include cleaning the hoist support assembly.

EASA AD 2021-0179 also allows installing an affected part, provided certain instructions are followed.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Interim Action

The FAA considers this AD to be an interim action. If final action is later identified, the FAA might consider further rulemaking.

Costs of Compliance

The FAA estimates that this AD affects 40 helicopters of U.S. Registry. The FAA estimates the following costs to comply with this AD.

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspecting	0.50 work-hour X \$85 per hour = \$42.50 per inspection cycle	\$0	\$42.50 per inspection cycle	\$1,700 per inspection cycle
Installing new boom torque tube plugs	0.25 work-hour X \$85 per hour = \$21.25	\$5,044	\$5,065.25	\$202,610

The FAA estimates the following costs to do any necessary replacements that are required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Cleaning boom torque tube interior or exterior	0.25 work-hour X \$85 per hour = \$21.25	\$0	\$21.25

Action	Labor cost	Parts cost	Cost per product
Replacing boom torque tube	6 work-hours X \$85 per hour = \$510	\$39,500	\$ 40,010
Replacing hoist support assembly	6.50 work-hours X \$85 per hour = \$552.50	\$44,864	\$45,416.50

The FAA has received no definitive data on which to base the cost estimates for the repairs specified in this AD.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-06-19 Leonardo S.p.a.: Amendment 39-21985; Docket No. FAA-2022-0008; Project Identifier MCAI-2021-00882-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Leonardo S.p.a. Model AW109SP helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 2560, Emergency Equipment.

(e) Unsafe Condition

This AD was prompted by reports of corrosion inside the hoist support assembly (boom assembly) (affected part) that affects both the huck bolt heads (blind bolt fasteners) and the support surface. The FAA is issuing this AD to address corrosion on the hoist support assembly. This condition, if not addressed, could affect the structural

integrity of the hoist support assembly, leading to in-flight detachment of the hoist support and consequent damage to the helicopter, and injury to hoisted persons.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0179, dated July 27, 2021 (EASA AD 2021-0179).

(h) Exceptions to EASA AD 2021-1079

(1) Where EASA AD 2021-0179 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2021-0179 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where the service information referenced in EASA AD 2021-0179 specifies discarding parts, this AD requires removing those parts from service.

(4) Where the service information referenced in EASA AD 2021-0179 specifies returning a part to the manufacturer, this AD requires removing that part from service.

(5) Where the service information referenced in EASA AD 2021-0179 specifies submitting photographs to the manufacturer, this AD does not require that action.

(6) Where the service information referenced in EASA AD 2021-0179 specifies attaching a label to the hoist support assembly, this AD does not require that action.

(7) Where paragraph (2) of EASA AD 2021-0179 specifies contacting Leonardo S.p.a. for corrective action instructions, this AD requires replacing or repairing before further flight using a method approved by the Manager, General Aviation and Rotorcraft Section, International Validation Branch, FAA; or EASA; or Leonardo S.p.a.'s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(8) This AD does not mandate compliance with the "Remarks" section of EASA AD 2021-0179.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2021-0179 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Special Flight Permit

Special flight permits may be permitted provided that there are no passengers on board.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0179, dated July 27, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0179, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0008.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 10, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-07263 Filed: 4/5/2022 8:45 am; Publication Date: 4/6/2022]